

EXPLANATION OF THE PLATES.

PLATE IX.

Teeth of *Hippopotamus minutus* Blainv., from the Pleistocene of Cyprus. The originals of figs. 1-5 are from the Cave of Haghios Jannos, Cape Pyla (south coast); the canine figured, figs. 7 & 8, is from the ossiferous breccia of Chrysostomo, near Kythraa (district of Nicosia).—All figures of the natural size, except fig. 6.

- Fig. 1. Fragment of the right mandibular ramus of very young specimen, showing the two posterior deciduous molars (d 1, d 2) scarcely worn, and behind them the anterior portion of the first true molar (m 1), which has not yet completely protruded.
2. Anterior portion of the left mandibular ramus of another very young individual, upper view—exhibiting the canine (c); the much-worn outer deciduous incisor (id 3), without any trace of enamel coating left; and the inner permanent incisor (i 1), which has not yet completely protruded.
3. Anterior portion of the right mandibular ramus of an individual slightly older than the preceding. Upper view. The canine (c), broken at the level of the alveolus, exhibits an almost horizontal section. The outer permanent incisor (i 3) has not yet cut the gum; the inner incisor (i 1) is more advanced.
4. Same specimen as fig. 2; lower view.
5. The same; outer view.
6. Much enlarged view from a portion of the outer enamel coating of the lower canine (fig. 5) near its base; to show the enamel sculpturing.
- Figs. 7 & 8. Middle-sized lower canine, probably ♀; right side. Fig. 7, inner; fig. 8, outer view.—The dimensions in millimetres are:—
- | | |
|---|------|
| Length, following the posterior curvature | 132 |
| Width of inner side | 16.5 |
| " " outer side | 12 |

The largest canine of the collection presents the following dimensions as above:—195—24—18.

PLATE X.

Portions of skull and molar teeth of *Hippopotamus minutus* Blainv., from the Pleistocene of Cyprus. Figs. 1-4 & 6, nat. size; fig. 5, $\frac{1}{2}$ nat. size.—All the figures have been reversed on the Plate.

- Fig. 1. Lacrymal region of an incomplete skull; right side. *fr.*=frontal, *n.*=nasal, *la.*=lacrymal, *mx.*=maxillary, *ma.*=malar. Cave Dikomo Mandra, near Nicosia.
2. Right upper true molars of skull, fig. 1; outer view.
- Figs. 3 & 4. First and second lower true molars; right side. Fig. 3, outer view; fig. 4, upper view. Chrysostomo.
- Fig. 5. Upper view of incomplete skull, from the Cave of Haghios Jannos, Cape Pyla.
- Fig. 6. The same as fig. 2; lower view.

6. On some new and little-known Butterflies of the Family *Lycænidae* from the African, Australian, and Oriental Regions. By HAMILTON H. DRUCE, F.Z.S., F.E.S.

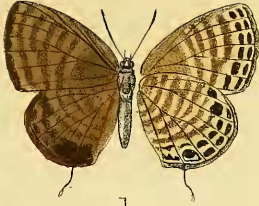
[Received May 14, 1902.]

(Plates XI. & XII.)

The following notes and descriptions are suggested by the study of some specimens of *Lycænidae* in our own collection, and of some in the Hope Museum at Oxford.

The types of the Australian species described by Herr Semper, and which are now in our possession, have been carefully com-

¹ For explanation of the Plates, see p. 121.



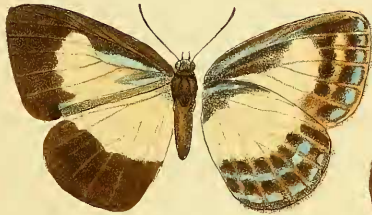
1.



3.



2.



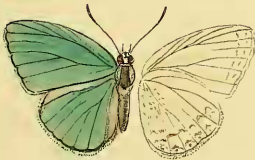
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4.



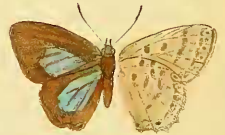
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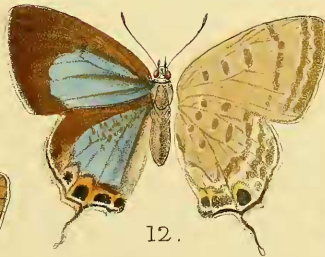
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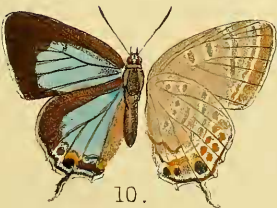
8.



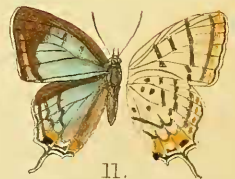
9.



12.



10.

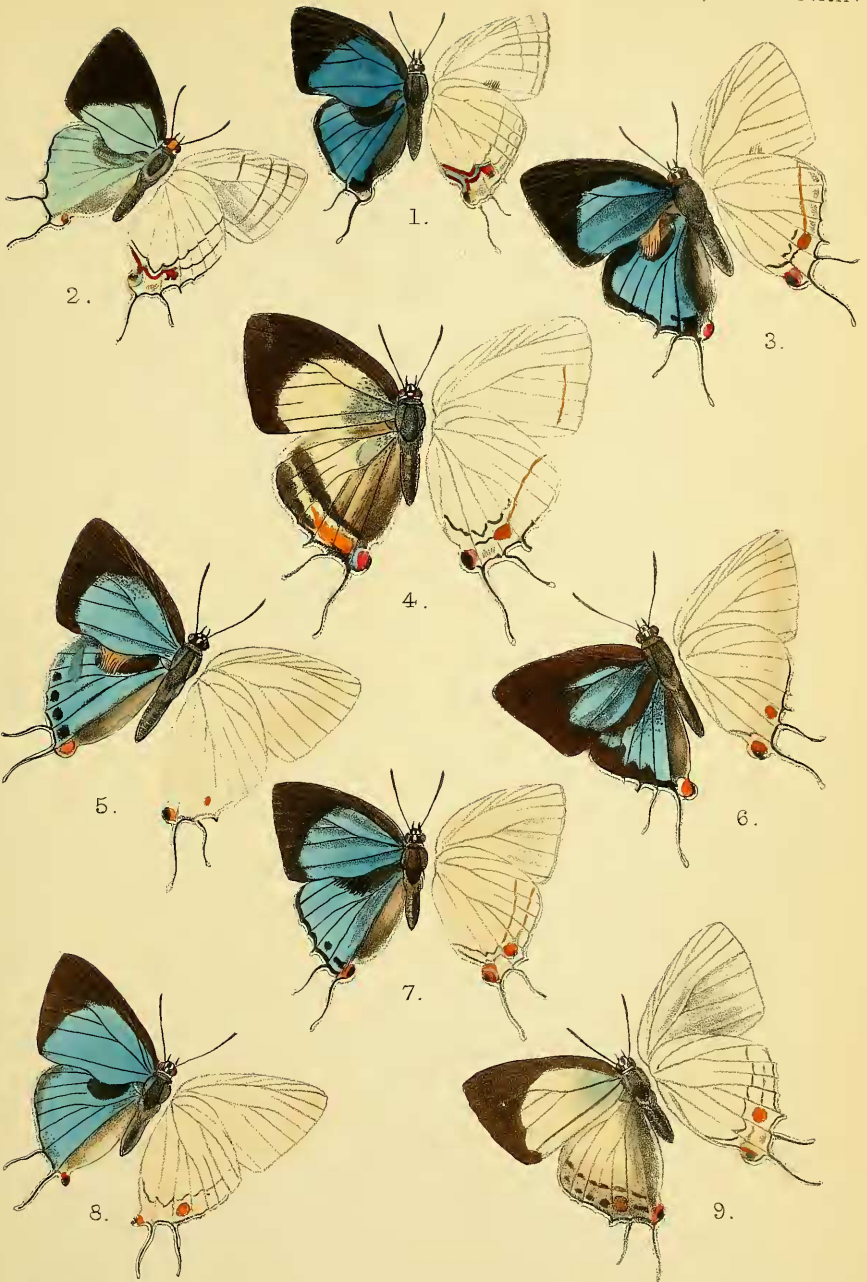


11.

W. Parkiss del. et lith.

Mintern Bros. imp.

NEW OR LITTLE-KNOWN BUTTERFLIES
OF THE FAMILY LYCÆNIDÆ.



W. Purkiss del. et lith.

Mintern Bros. imp.

NEW OR LITTLE-KNOWN BUTTERFLIES
OF THE FAMILY LYCÆNIDÆ.

pared, and as they appear to be quite unknown to Australian Lepidopterists, I hope these notes will be found useful.

I am also able to exhibit specimens of several fine species of African *Iolai* which have hitherto been known from descriptions only.

HYPOCHRYSOPS REX Bd., var. *BRUNNEA*, nov.

The female of this form differs considerably from that sex of typical *H. rex* by the white area on the fore wing above being much reduced in size and scarcely extending into the middle of the cell. The male does not differ from *H. rex* ♂.

Hab. Ferguson Is. (*A. S. Meek*; Mus. Druce).

I believe that *H. epicletus* Felder, which at one time (Trans. Ent. Soc. 1891) I thought could be separated from *H. rex*, must be sunk as a synonym of that species, as we possess several specimens from Aru, collected by Captain Cayley Webster, which are identical with specimens from New Guinea.

We have lately received a female of *H. rovena* mihi from Cooktown, in which the blue suffusion extends all round the white patch on the fore wing above.

TALICADA NYSEUS Guér., var. *KHASIA*.

This form, which appears to only inhabit the Jaintia and Khasia Hills, is distinguished from the Southern and Western Indian forms by the much larger black spots on the hind wing below, and by the black outer marginal border (containing the row of white lunules) on the fore wing being much narrower, consequently the white area between it and the inner black band is much more extensive. There is almost invariably an elongated black spot on the costa over the middle of the cell. This black spot never occurs in any Southern or Western specimens. The red on the hind wing above is more in the nature of a band in the form *khasia* than in typical *nyseus*. Mr. Moore has figured the Southern form, whilst de Nicéville gives an excellent figure of the Northern insect (Butt. Ind. iii. pl. xxvi. fig. 179). Guérin's figure of his type from Pondicherry shows more white between the black bands on the fore wing below than in any specimens I have come across from S. or W. India, but we possess one from Ganjam agreeing exactly. I have examined a considerable number of specimens, but although the two forms vary slightly *inter se* they can be at once distinguished.

Staudinger's figure, which is said to represent an African specimen, is much like those from S. India. It is, however, without a tail, and has been named *T. ecaudata* by Dr. Butler (Ann. & Mag. N. H. ser. 7, vol. v. p. 61, 1900). The orange patch appears to me to be of much the same tint as in Indian specimens.

NACADUBA ATROMARGINATA, sp. n. (Plate XI. figs. 1, 2.)

♂. Allied to *N. angusta* Druce, from which it differs on the upperside by the outer margins of both wings being distinctly

black-bordered, and by the anal region of the hind wing being strongly suffused with black.

On the underside, the ground-colour is darker and yellower and the bands are more distinct. The two submarginal rows of black spots on each wing are larger and blacker.

♀. Upperside uniform dark brown, with the markings of the underside showing through, slightly whitish in the centre of the disc of the fore wing, and with two or three dull black spots at the anal angle of the hind wing, outwardly margined by a fine white line. When held at an angle, the disc of the fore wing appears slightly suffused with bright blue scales from the base. Underside as in male.

Abdomen brown above; yellowish below. Legs and antennæ spotted with white.

Expanse, ♂ $1\frac{1}{2}$; ♀ $1\frac{3}{10}$ inch.

Hab. S. Celebes (*Doherty*); Tombugu, E. Celebes (*Kuhn*) (*Mus. Druce*).

This appears to be the insect figured by Herr Semper (*Reise Philipp. Inseln*, p. 177, pl. xxxiii. figs. 1, 2) as *N. azureus* Rober, but a reference to Herr Rober's figure shows an insect with a linear black margin only.

UNA PURPUREA, sp. n. (Plate XI. fig. 3.)

♂. Upperside dull blackish purple, with the outer margins of both wings narrowly and indistinctly black, broadest towards anal angle of hind wings. Underside: fore wing dull greyish brown, yellowish along the costal area; a whitish blotch beyond and closing the end of the cell, followed by another about half-way between it and the outer margin.

Hind wing: basal half pale straw-colour, without markings; outer half russet-brown, with a submarginal row of 4 or 5 dull indistinct blackish spots between the nervules, the largest being between the lower medians—these spots being surmounted by dull straw-colour spaces.

The margins of both wings are very narrowly yellowish between the nervules, and the fringes are dark brown.

Head, thorax, and abdomen blackish above, yellowish below. Antennæ spotted with white.

Expanse 1 inch.

Hab. Lifu I., Loyalty Is. (*Mus. Druce*).

This species, which is tailless, appears to agree exactly in venation with *Una usta* Distant, and like that insect has rather long antennæ and the long hair-like scales about the anal angle of hind wing—this last character, however, is not so marked as in *U. usta*. The eyes are hairy as in that species. *Prosotas*¹ is probably a closely-allied genus, but the antennæ are much shorter.

JAMIDES PHASELI Mathew².

This insect is placed by Mr. Miskin (Ann. Queensl. Museum,

¹ *Prosotas* H. H. Druce, P. Z. S. 1891, p. 366.

² *Lampides phaseli* Mathew, Trans. Ent. Soc. 1889, p. 311.

no. 1, 1891) in *Lycænesthes*, with a mark denoting that he did not know the species.

I have seen Mr. Mathew's type, which is in Mr. Godman's collection, and find that it belongs to the group of which *J. bochus* Cr. is the best known representative, but is a much duller insect. We have exactly similar specimens from Rockhampton.

WAIGEUM CERAMICUM, sp. n. (Plate XI. fig. 6.)

♀. Allied to *W. subceruleum* Grose-Smith & Kirby¹, from which it differs on the upper and under side by the white areas of both wings being much more extensive, and consequently by the brown borders being narrower. In addition to the blue scales shown in the figure of the upperside of *W. subceruleum*, the lower half of the cell of the fore wing is thickly so dusted.

On the underside of the fore wing the costal and outer marginal blue lines are alone present, the blue submarginal band and the streak in the cell are wanting. The submarginal band is partially replaced by whitish. On the hind wing the ultramedian blue band is replaced by a narrow line, and the yellowish-brown marginal border is scarcely discernible.

Expanse 2 inches.

Hab. Ceram (Wallace; Hope Coll. Mus. Oxon.).

The type specimen, which is the only one I have seen, is also labelled "Coll. Wallace, Hewitson 1874," and was probably acquired from Hewitson by Professor Westwood as a duplicate.

PHILIRIS INNOTATUS Miskin.

Pseudodipsas innotatus Miskin, Ent. Mo. Mag. p. 165 (1874).

Mr. Miskin, in his Catalogue of the Butterflies of Australia (Annals Queensl. Museum, no. 1, 1891), sinks this name as a synonym of *P. ilias* Felder. I cannot, however, agree with him. We have a large series of *P. ilias* from Amboyna captured by Doherty, which do not vary, and which I have compared with Felder's type. *P. innotatus* has the apex of the fore wing and the outer margins of both wings more broadly black-margined. The shape of the fore wings is also quite different: in *P. innotatus* the inner margin is much shorter and the outer margin (which in *P. ilias* is convex) is much straighter, consequently the apex of the wing is very much more pointed.

We have a good series of *P. innotatus* from various parts of N. Australia, and I find that these characters are always present.

Mr. de Nicéville has lately (J. A. S. B. vol. xlvi. pt. ii. n. 2, p. 265, 1898) stated that *Philiris* Rober should be sunk under *Pseudodipsas* Feld., but with this conclusion I do not agree. Certainly the venation appears to be almost identical with that genus, as indeed it does with *Hypochrysois*; but the shape of the wings in the male is quite different, the hind wing being much more elongate towards the anal angle with its outer margin nearly straight. The antennæ also are much longer and more gradually and more extensively clavate.

¹ *W. subceruleum* Grose-Smith & Kirby, Rhop. Exot. vol. ii.; Oriental Lycenidæ, p. 35, pl. vii. figs. 4, 5 (1896).

P. digglesi Hew. appears to agree in these characters with the type of *Pseudodipsas*, viz. *P. cone* Feld. Two other species are included by Mr. Miskin (*loc. cit.* p. 67) in *Pseudodipsas*, but I have not seen these. Mr. de Nicéville (*loc. cit.*) appears to have confused *P. ilias* with *P. intensa* Butl. Mr. Miskin also states that he knows *Utica onycha* Hew. from the description and figures only. Probably he knows it well under another name, as it is quite a common species and we have many examples from various parts of Australia and New Guinea, which I have compared with the type in the British Museum. Hewitson's figure, which represents a female, is too highly coloured. *Theclinesthes eremicola* Pagenst. Zoologica, xxvii. p. 123, pl. ii. fig. 9 (1900), appears to be identical with Hewitson's *Utica onycha* and must be sunk as a synonym.

ARRHENGTHRIX PENICILLIGERA de Nicéville.

There appear to be two forms of this species from the Khasia Hills. The larger and typical form has the black apical border more extensive and the blue coloration darker in shade than the smaller form, which has the blue area on the fore wing extending partially up the outer margin from the angle. Large series of each form have been received, and these differences may possibly be seasonal.

TAJURIA THYIA de Nicév.¹, var. PALLESCENS, nov.

♂. Upperside with the blue area much paler, more lavender, and more extensive than in typical *thyia*; in the fore wing extending upwards to the 2nd median nervule, and in the hind wing much closer to the costal margin. The underside is also paler, with the short marks at the ends of the cells clearly defined, and the black spots at the lobe and between the lower median nervules minute and very faintly surrounded with pale yellow.

Hab. Jaintia Hills (*Mus. Druce*).

This form, which may be seasonal, has been received in considerable numbers by Colonel Swinhoe, to whose generosity we are indebted for possessing it. We have typical *T. thyia* also from the Jaintia Hills.

PSEUDALMENUS, gen. nov.

Allied to *Ialmenus*, from which it differs by the costal margin being depressed about the middle, not arched as in that genus, and by the subcostal nervule reaching the margin below the apex of the wing (in *Ialmenus* it reaches the margin above the apex). The cell is shorter and broader, and in the hind wing the median nervule is longer with its branches more nearly equal in length, this being caused by the upper nervule being bent upwards more

¹ *Tajuria thyia* de Nicév. J. B. N. H. Soc. 1892, p. 336, pl. H. fig. 11, ♂.

than in *Ialmenus*. Palpi more robust and hairy and the terminal joint shorter. Eyes smooth.

Type, *Thecla myrsilus* Doubl. & Hew.

EPAMERA SAPPIRUS, sp. n. (Plate XII. fig. 1.)

♂. Upperside closely allied to *E. bellina*, but slightly darker blue, and the lower half of the lobe rather more distinctly white. The anal black quadrate spot is large and distinct.

On the underside this species is more nearly allied to *E. mermis mihi*, and like it has linear dark bands crossing the wings beyond the middle, but not so distinctly black as in that species. The line at the end of the cell in fore wing is almost obsolete. The reddish-orange anal patch is more extensive and reaches upwards to the black line and outwardly to the red spot between the lower median nervules.

Along the centre of this red patch runs a broad line of metallic scales, from the anal margin, zigzag to the red spot and downwards towards the lobe. The apex of the fore wing is slightly brownish. The tuft of hair on inner margin of fore wing below is black.

Frons white; body black above, buff-colour below. Legs white, with black spots. Antennæ black, with small white spots.

Expanse $1\frac{1}{5}$ – $1\frac{3}{5}$ inch.

Hab. Sierra Leone; Addah (*Mus. Druce*).

We have long possessed a specimen of this insect which I thought was a variety of *E. bellina*, but the receipt of more specimens has convinced me it is distinct. *E. bellina* has no dark lines below.

I take this opportunity of exhibiting figures of several beautiful species of this group which have hitherto been known only from descriptions; they are as follows:—

E. mermis mihi (Pl. XII. fig. 2), Ann. & Mag. Nat. Hist. (6) xvii. p. 285 (1896).

Argiolaus silas, var. *lalos mihi* (Pl. XII. figs. 3, 4), *tom. cit.* p. 286 (1896).

A. lukabas mihi (Pl. XII. fig. 5), Ann. & Mag. Nat. Hist. (6) v. p. 30 (1890).

A. paneperrata mihi (Pl. XII. fig. 7), *tom. cit.* p. 30 (1890).

A. menas mihi (Pl. XII. figs. 8, 9), *tom. cit.* p. 29 (1890).

A. julius Staud. (Pl. XII. fig. 6), Iris, iv. p. 146 (1891).

APHNIOLAUS, gen. nov.

Allied to *Epamera*, and like that genus possessing four subcostal nervules to the primaries in both sexes. Differing, however, by the inner margin of fore wing in ♂ being nearly straight, and by the total absence of secondary sexual characters.

Type, *Myrina pallene* Walleng.

This genus, which contains only one species, appears to connect the group of genera allied to *Iolaus* with *Aphneus*.

Professor C. Aurivillius, in his 'Rhopalocera Æthiopica,' includes several structurally distinct groups under the genus